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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/426,380 10/25/99 GATLEY

W FASV-131-C1

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BOSTON MA 02109

MMC2/0214

EXAMINER

PEREZ, G	
ART UNIT	PAPER NUMBER

2834
DATE MAILED:

02/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/426,380

Applicant(s)

GATLEY ET AL.

Examiner

Guillermo Perez

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other.

DETAILED ACTION

Continued Prosecution Application

The request filed on January 17, 2001 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/426,380 is acceptable and a CPA has been established. An action on the CPA follows.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 26-32 and 34-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over E. P. Larsh (U. S. Pat. No. 1,939,399) in view of F. N. Zimmermann et al. (U. S. Pat. No. 2,981,196).

E. P. Larsh discloses a method of enclosing a C-frame motor having a motor assembly including a stator (10), a rotor (14) rotatable within the stator and at least one bobbin (12) having electrical conductor windings situated thereon, the method comprising the steps of

- a. providing a mounting bracket (34) adapted to attach to the stator;
- b. providing a main housing (2) having an aperture, the main housing including an end plate adapted to attach to the mounting bracket, wherein the main housing includes a plurality of vents (figures 2, 4-6);

- c. securing the end plate of the main housing to the mounting bracket (34) such that the motor assembly is supported within the main housing;
- d. providing at least one impeller (4) rotatable with the rotor; and
- e. operating the motor such that rotation of the rotor causes the impeller to rotate to circulate air through the vents in the main housing to direct a curtain of air over the motor assembly to cool the motor assembly;
- f. the step of providing a rotor shaft (5) attached to the rotor, wherein the impeller is mounted to the rotor shaft for rotation along therewith;
- g. a C-frame motor comprising:
- h. a stator having a plurality of electrically conductive laminations, wherein the laminations have portions which define rotor apertures and portions which define radially extended projections;
- i. a rotor sized to be rotatably received within the rotor apertures of the stator laminations, the rotor being rotatably mounted to a rotor shaft;
- j. at least one bobbin having a plurality of coils comprising at least one wound electrical conductor wherein the bobbin is attached to the radially extended projections of the stator;
- k. a main housing configured to encompass the stator, the rotor and the bobbin, the main housing including an end plate attachable to the stator to support the main housing, the main housing having a plurality of vent slots;

- l. an impeller mounted to the rotor shaft for rotation with the rotor, wherein rotation of the impeller circulates air through the vent slots in the main housing to cool the motor; and
- m. the end cap includes vent slots such that rotation of the impeller circulates air through the vent slots formed in the end cap to cool the motor.

However, E. P. Larsh does not disclose the provision of a main housing having an aperture configured to conform to the shape of the motor assembly. Neither does E. P. Larsh disclose the provision of a radially extended portion on the main housing to enclose at least the bobbin. The radially extended portion including vent slots such that rotation of the impeller circulates air through the vent slots in the radially extended portion to cool the motor assembly is not disclosed. E. P. Larsh does not disclose the provision of an end cap attachable to the main housing for encompassing the impeller, wherein the end cap includes a plurality of vent slots such that rotation of the impeller circulates air through the vent slots formed in the end cap to cool the motor assembly. The provision of a radially extended portion on the end cap such that when the end cap is attached to the main housing, the radially extended portion encloses at least the bobbin is not disclosed by E. P. Larsh. It is not disclosed in E. P. Larsh a rotor having a plurality of laminations. E. P. Larsh does not disclose that the main housing includes a radially extended projection provided to conform to the shape of the radially extended projections of the stator and encompassing at least the bobbin.

F. N. Zimmermann et al. disclose the provision of a main housing (20) having an aperture (27) configured to conform to the shape of the motor assembly. Also F. N.

Zimmermann et al. disclose the provision of a radially extended portion (43,40) on the main housing to enclose at least the bobbin. The radially extended portion including vent slots (62) such that rotation of the impeller (78) circulates air through the vent slots in the radially extended portion to cool the motor assembly is disclosed. F. N.

Zimmermann et al. disclose the provision of an end cap (60) attachable to the main housing for encompassing the impeller, wherein the end cap includes a plurality of vent slots (62) such that rotation of the impeller circulates air through the vent slots formed in the end cap to cool the motor assembly. The provision of a radially extended portion (61) on the end cap such that when the end cap is attached to the main housing, the radially extended portion enclosing at least the bobbin is disclosed by F. N.

Zimmermann et al. F. N. Zimmermann et al. also disclose that the main housing includes a radially extended projection provided to conform to the shape of the radially extended projections of the stator and encompassing at least the bobbin, for the purpose of cooling the motor components by improving air circulation in and around the motor.

It would have been obvious at the time the invention was made to modify the motor and the method of enclosing the C-frame motor of E. P. Larsh and provide it with the housing configuration disclosed by F. N. Zimmermann, for the purpose of improving air circulation in and around the motor.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the C-frame motor of E. P. Larsh with a rotor having a

plurality of laminations, since it was known in the art that rotors can be formed by stacking laminations, or by molding a solid structure, and other methods.

2. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over E. P. Larsh in view of F. N. Zimmermann et al. as applied to claim 32 above, and further in view of Bright et al. (U. S. Pat. No. 3,969,043).

E. P. Larsh and F. N. Zimmermann et al. disclose a C-frame motor as described on item 1 above. However, neither E. P. Larsh nor F. N. Zimmermann et al. disclose a mounting bracket configured to rotatably support the rotor shaft and adapted to attach to the stator, wherein the end plate of the main housing is attachable to the mounting bracket.

Bright et al. disclose a mounting bracket (190) configured to rotatably support the rotor shaft (166) and adapted to attach to the stator (174), wherein the end plate of the main (18) housing is attachable to the mounting bracket, for the purpose of improving alignment of the components of the motor.

It would have been obvious at the time the invention was made to modify the C-frame motor of E. P. Larsh and F. N. Zimmermann et al. and provide it with a mounting bracket as disclosed by Bright et al., for the purpose of improving alignment of the components of the motor.

Response to Arguments

Applicant's arguments with respect to claims 26-39 have been considered but are moot in view of the new ground(s) of rejection.

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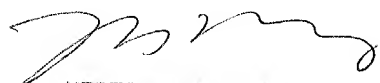
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guillermo Perez whose telephone number is (703) 306-5443. The examiner can normally be reached on Monday through Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308 1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305 3432 for regular communications and (703) 305 3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.

Guillermo Perez
February 11, 2001


NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
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